Quiz 3 Row Operations II.

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$$\text{Let } M = (A|B) = \begin{bmatrix} 2 & 1 & 0 & | & 2 \\ 0 & 1 & 2 & | & 12 \\ 2 & 1 & 1 & | & 9 \end{bmatrix}$$

be an augmented matrix of a linear system.

1. Determine the first (standard) elementary row operation to produce REF of M. Use correct notation:

   Answer: $R_3 - R_1$.

2. Carry out the standard operations to determine its REF. You need only one operation!

   Answer: $\begin{bmatrix} 2 & 1 & 0 & | & 2 \\ 0 & 1 & 2 & | & 12 \\ 0 & 0 & 1 & | & 7 \end{bmatrix}$

3. Use back substitution to solve the equations $AX = B$.

   Answer: $X = (2, -2, 7)$.